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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/631,716

08/03/2000

Roger Donell Weekly

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9205

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7590

03/17/2005

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EXAMINER

MEEK, JACOB M

ART UNIT

PAPER NUMBER

2637

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/631,716	Applicant(s) WEEKLY, ROGER DONELL	
	Examiner Jacob Meek	Art Unit 2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,10,17,18,20 and 21 is/are rejected.
- 7) ☒ Claim(s) 3 - 9, 11-16,19,22,23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. Applicant's amendment filed September 27, 2004 has been entered.

Response to Arguments

2. Applicant's arguments see section III, filed 9/27/2004, with respect to Claim
Objections have been fully considered and are persuasive. The Claim Objection of
Office Action dated 6/29/2004 has been withdrawn.
3. Applicant's arguments with respect to claims 1, 2, 4, 6, 9 – 14, 16 – 18, 20, 21,
and 23 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that
form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 17, 18, 20, 21 are rejected under 35 U.S.C. 102(e) as being
anticipated by Clark et al (US Patent 6,425,086).

With regard to Claim 1, Clark teaches an apparatus including a modulating arrangement operatively connected to apply a first modulation to one of the system supply voltage (see column 2, lines 14 - 25) or a clock signal frequency for the system, the first modulation varying one of the system supply voltage or clock signal frequency about a nominal value for the one of the system supply voltage or clock signal frequency (see column 5, lines 18 – 40 where this is interpreted as equivalent functionality); and a corresponding modulating

arrangement (see column 5, lines 18 – 40 where this is interpreted as equivalent functionality) operatively connected to apply a corresponding modulation to the other one of the system supply voltage or the clock signal frequency.

With regard to Claim 2, Clark further teaches the modulating arrangement includes a modulator connected to provide a modulated signal (see column 7, lines 15 - 41) to a reference input to the power supply circuit; and the corresponding modulating arrangement includes an arrangement for applying the system supply voltage to control modulation of the clock signal frequency (see column 7, lines 15 - 41, and Figures 5 - 7 for voltage / frequency control relationship).

With regard to Claim 17, Clark teaches a method for modulating a power supply signal for the circuit at a first modulation (see column 2, lines 14 - 25), and modulating the frequency of the clock signal for the circuit at a corresponding modulation (see column 5, lines 18 – 40 where this is interpreted as equivalent functionality).

With regard to Claim 18, Clark further teaches a method for modulating a reference voltage input to a power supply for the circuit (See column 4, lines 50 – 57 where this is interpreted as equivalent functionality).

With regard to Claim 20, Clark further teaches applying a modulation signal source output to a modulation input of a clock source circuit (See column 6, lines 60 - 65).

With regard to Claim 21, Clark further teaches applying the modulation signal source output to modulate a reference voltage input to a power supply circuit (See column 6, lines 60 - 65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2637

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark

('086) in view of Hardin et al (Spread spectrum clock generation for the reduction of radiated emissions;

Hardin, K.B.; Fessler, J.T.; Bush, D.R.; Electromagnetic Compatibility, 1994. Symposium Record. Compatibility in the Loop. IEEE International Symposium on , 22-26 Aug. 1994 Pages:227).

With regard to Claim 10, Clark teaches an apparatus having a clock source having a frequency modulation input and providing a clock signal (see column 5, lines 18 - 22), a power supply circuit providing a supply voltage output (see column 5, lines 28 - 40), a modulating arrangement (see column 5, lines 18 - 22) operatively connected to apply a first modulation to one of the supply voltage output or the frequency of the clock signal, and a corresponding modulating arrangement operatively connected to apply a corresponding modulation to the other one of the supply voltage output or the frequency of the clock signal(see column 5, lines 28 - 40). Clark is silent with respect to a spread spectrum clock. Hardin et al teach the advantages and need for a spread spectrum clock system (See Figures 1, 2, and 5). It would have been obvious to one of ordinary skill in the art to adapt the system clock of Clark using the spread spectrum clock of Hardin to produce system with superior EMI performance.

Other Cited Prior Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Puckette et al (US Patent 5,736,893), Booth et al (US Patent 5,872,807), Li et al (US Patent 5,943,382) and Sha (US Patent 6,377,646) all disclose techniques for producing a spread spectrum clock signal. Beard (US Patent 5,627,412), Mote, Jr. (US Patent

5,630,110), Horden et al (US Patent 5,812, 860), Nicol et al (US Patent 6,141,762), Abesselem et al (US Patent 6,355,157), Yamamoto et al (US Patent 6,424,184) all disclose techniques for adjusting system voltages and frequencies in relation to one another.

Allowable Subject Matter

7. Claims 3 – 9, 11 – 16, 19, 22, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Meek whose telephone number is (571)272-3013. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571)272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMM



JAY K. PATEL
SUPERVISORY PATENT EXAMINER